

Notice of Allowability

Application No.

09/977,172

Examiner

Thomas M Ho

Applicant(s)

KELLY, ADAM V.

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/15/01.
2. ☒ The allowed claim(s) is/are 1-3.
3. ☒ The drawings filed on 15 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. Claims 1-3 are pending.

Reasons for Allowance

2.

The Examiner's main reference used is iParadigms.com's website, which appears to have links to many other websites within the iParadigms network such as turnitin.com and plagiarism.org. These are apart of the iParadigms website network and are treated as a single reference by the Examiner.

Turnitin.com discloses a method for detecting plagiarism comprising:

- a) submitting a document to be checked, where the document to be submitted is performed by clicking to submit a paper. ("Welcome to Turnitin.com" from iParadigms, page 1)
- c) selecting an archive against which the document to be checked is to be checked, where the archive is the manuscript index from which the other documents(document B) is taken from ("Sentence or Paragraph Addition" from iParadigms, pages 1 of 3 and 2 of 3)
- e) comparing the values of each sentence in the document to be checked against the values of each sentence in the archive, where the values are the sentences and their

constituent words(these have ascii values), and the document A is checked against document B, from the archive. (“Sentence or Paragraph Addition” from iParadigms, pages 1 of 3 and 2 of 3)

f) identifying sentences from the document being checked that have values essentially equal to values of sentences in the archive, where the sentences that were identified were the added sentences of one paper to another. (“Sentence or Paragraph Addition” from iParadigms, pages 1 of 3 and 2 of 3)

Turnitin.com fails to disclose

b) placing a numerical value on each sentence in the document to be checked according to the formula

$$V = \sum(a_i)^2 \text{ for } [i,n]$$

Where V is a numerical value assigned to each sentence in the document to be checked, n is the number of characters in the sentence in the document to be checked for which V is being determined, and a_i is the ASCII value of the i^{th} character in the sentence in the document to be checked for which V is being determined.

d) placing a numerical value on each sentence in the archive according to the formula

$$V = \sum(a_i)^2 \text{ for } [i,n]$$

where V is a numerical value assigned to each sentence in the archive, n is the number of characters in the sentence in the archive for which V is being determined, and a_i is the ASCII value of the i th character in the sentence in the archive for which V is being determined.

Kirsch et al., US patent 6772196 discloses (Column 10, lines 15-20)

b) placing a numerical value on each sentence in the document to be checked according to the formula

$$V = \sum(a_i) \text{ for } [i,n]$$

Where V is a numerical value assigned to each sentence in the document to be checked, n is the number of characters in the sentence in the document to be checked for which V is being determined, and a_i is the ASCII value of the i^{th} character in the sentence in the document to be checked for which V is being determined.

d) placing a numerical value on each sentence in the archive according to the formula

$$V = \sum(a_i) \text{ for } [i,n]$$

where V is a numerical value assigned to each sentence in the archive, n is the number of characters in the sentence in the archive for which V is being determined, and a_i is the ASCII value of the i th character in the sentence in the archive for which V is being determined.

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To give more details about this disclosure, Kirsch et al. states that a checksum may be used for individual sentences. A checksum is understood in the art to be a kind of document integrity checking mechanism, in which the ascii values of the characters are added up to a total value. Every character has a predefined ascii value that those in the art are aware of. For Example, capital 'A' has ascii value 65. Here are other example values.

Binary	Decimal	Hex	Graphic
0110 0000	96	60	`
0110 0001	97	61	A
0110 0010	98	62	B
0110 0011	99	63	C
0110 0100	100	64	D
0110 0101	101	65	E
0110 0110	102	66	F
0110 0111	103	67	G
0110 1000	104	68	H
0110 1001	105	69	I
0110 1010	106	6A	J
0110 1011	107	6B	k
0110 1100	108	6C	l
0110 1101	109	6D	m
0110 1110	110	6E	n
0110 1111	111	6F	o
0111 0000	112	70	p
0111 0001	113	71	q
0111 0010	114	72	r
0111 0011	115	73	s
0111 0100	116	74	t
0111 0101	117	75	u

0111 0110	118	76	v
0111 0111	119	77	w
0111 1000	120	78	x
0111 1001	121	79	y
0111 1010	122	7A	z

This the definition of checksum as understood by those in the art. (taken from the wikipedia)

A **checksum** is a form of redundancy check, a very simple measure for protecting the integrity of data by detecting errors in data that is sent through space (telecommunications) or time (storage).

It works by adding up the basic components of a message, typically the bytes, and storing the resulting value. Later, anyone can perform the same operation on the data, compare the result to the authentic checksum, and (assuming that the sums match) conclude that the message was probably not corrupted.

Kirch et al.'s disclosure of a checksum in the context of sentence to sentence, therefore reveal a method where the formula used is $V = \sum(a_i)$ for $[i,n]$ but fails to teach a method where the formula used is $V = \sum(a_i)^2$.

No prior art can be found which discloses "placing a numerical value on each sentence in the archive according to the formula $V = \sum(a_i)^2$ for $[i,n]$."

For this reason, claim 3 is held to be allowable.

It is noted by the Examiner that the claims recites these basic features.

- Setting a current directory based on the checker password
- Storing each sentence in the document in an array of string variables.
- Use of ASCII values.

Therefore, while no computer apparatus is actually recited, it is evident from the disclosure that the method is taking place on a computer.

Claim 3 is the broadest independent claim and its limitations are recited in Independent claim, claim 1.

For these reasons, Claim 1 is allowable.

Claim 2 is dependent upon claim 1. For this reason, claim 2 is allowable.

Examiners Comment

3. While under other circumstances would reject claim 3 under the phrase “essentially equal” under 35 USC 112 as being indefinite, the Examiner notes that in the circumstance of

dealing with plagiarism, one must make a reasonable judgment call on when two papers are similar enough to be called plagiaristic. The differences then between two documents, papers, or paragraphs of writing need not be confined to a definite numerical range to be understood as similar or different. Those of ordinary skill in the art would understand that regardless of the metric used (exact phrases, numerical analysis, or analysis by content), documents need only be “essentially equal” to be potentially plagiarized.

Conclusion

4. The following art not relied upon is made of record:
 - US patent 5500864 discloses a method for making checksums involving an alternate mathematical formula.
 - US patent 5247524 discloses a method for making checksums involving an alternate mathematical formula.
 - US patent 5701316 discloses a method for making checksums involving an alternate mathematical formula.
 - US patent 4807182 discloses using a method for using checksums to detect differences between incoming data blocks.
 - US PGPUBS 2003/0145206 and US 2004/0111668 do not qualify as prior art, but recite information about the nature of checksums that is relevant to the basis of Examiner’s likening of Applicant’s plagiarism formula to a checksum.
5. Any inquiry concerning this communication from the examiner should be directed to

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Thomas M Ho whose telephone number is (571)272-3835. The examiner can normally be reached on M-F from 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached on (571)272-3838.

The Examiner may also be reached through email through Thomas.Ho6@uspto.gov

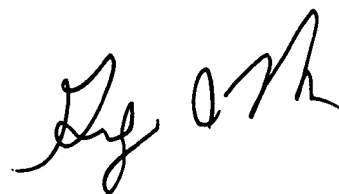
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

General Information/Receptionist Telephone: 571-272-2100 Fax: 703-872-9306

Customer Service Representative Telephone: 571-272-2100 Fax: 703-872-9306

TMH

March 31st, 2005

A handwritten signature in black ink, appearing to read 'Greg Morse', is written in a cursive style.

GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100